

Application No. 10/693,087  
Response to Office Action

Customer No. 01933

R E M A R K S

Entry of this Amendment and reconsideration of this application as amended are respectfully requested.

Claims 1-26 and new claims 28 and 29 are pending in this application. Claims 1-26 have been rejected. Claims 1, 12, 14, 18, 22 and 24 are amended. Claim 27, which was deemed drawn to a non-elected invention, has been cancelled without prejudice to filing a divisional application directed to the subject matter of this claim.

Claims 1-26 are rejected under 35 U.S.C. §103(a) as being unpatentable over Richards et al. (USP 4,869,049) in view of Demming et al. (USP 6,219,998).

The Examiner's rejection is respectfully traversed for the reasons set forth below.

Claims 1-13 and 20-22

Independent claims 1 and 22 are amended to recite that the first closing means pre-form a closure at a front end portion of the tubing during manufacture of the cartridge and prior to insertion of the cartridge into the waste disposal device. As described in the specification at page 30, lines 1-13, the closing means are arranged in connection with the tubing during manufacture of the cartridge. In this manner, the cartridge is

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immediately ready for use upon insertion into the waste disposal device without the need to manually tie the tubing.

Richards et al. and Demming et al. do not disclose a tubing of a cartridge for a waste disposal device having a pre-formed closure. However, the Examiner takes a position that it would have been obvious to modify the invention of Richards et al. by closing the first end of the tubing to form a space within which the material can be placed as taught by Demming et al.

#### Non-Analogous Art

Initially, one skilled in the art would not consider applying any teaching of Demming et al. in combination with Richards et al., because one skilled in the packaging art would not consider Demming et al. to be either analogous art or in the same field of endeavor as Richards et al.

Demming et al. relates to a method for filling a casing with a filling material in which the casing in its entirety is drawn over and around the surface of a filling tube from which the filling material is continuously pressed out until the tubing is exhausted. The tubing in its entirety is exposed as it forms a caterpillar-shaped reservoir around the filling tube and is gradually drawn out by the continuously flowing filling material to form the individual packages, upon crimping and cutting of the tubing. The filling tube is therefore partially if not entirely inside of the tubing (see Figs. 1-3).

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In Richards et al., the tubing is accordion-folded into a cavity in the cartridge and remains in the cavity until waste is inserted into an exposed portion of the tubing and pushed downward into the waste disposal device, at which time, an additional amount of tubing is removed from the cavity. Waste is not continuously inserted into the waste disposal device but only periodically inserted so that the waste is inserted as a series of small packages, i.e., each soiled diaper. Indeed, waste must be only periodically inserted into the tubing (each insertion being separated in time) to allow the device to be actuated to form a twist above the inserted waste.

There are thus substantial differences in both the apparatus and the manner in which a length of flexible tubing is used in Demming et al. and Richards et al. which result in Demming et al. being non-analogous art to Richards et al. For example, while Demming et al. relates to a filling method wherein a filling material is continuously pressed out of a filling tube into the tubing, Richards et al. describes a waste disposal device wherein the waste is periodically inserted into the tubing. Also, while the filling tube in Demming et al. is arranged partially inside of the tubing, in Richards et al., there is no filling tube through which the material is passed into the tubing.

Accordingly, although Demming et al. involves use of a flexible tubing to form a series of packages, it describes a

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significantly different apparatus having a substantially different manner for using the tubing and therefore, one skilled in the art would not consider it to be in the same art or field of endeavor as Richards et al. As such, one skilled in the art would not apply any teaching of Demming et al. in combination with Richards et al.

Lack of Obviousness

Assuming arguendo that Demming et al. is not non-analogous art, the cited prior art does not support the obviousness to one skilled in the art to combine the teachings of Demming et al. with Richards et al. and arrive at the embodiments of the invention set forth in claims 1 and 22.

In order to sustain the obviousness rejection of claims 1 and 22, there must be some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead the individual to combine the relevant teachings of the references. See, e.g., In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

It is respectfully submitted though that there is no objective teaching in the cited prior art to close the first end portion of the tubing in the Richards et al. cartridge and there is also no knowledge generally available to one skilled in the art which would lead an individual to close the first end portion of the tubing.

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As to the existence of an objective teaching, Richards et al. does not disclose a closure arranged in connection with a front end portion of tubing for pre-forming a closure thereat in order to create a waste receiver without tying of the front end portion of the tubing. Richards also does not teach or even remotely suggest pre-forming a closure at the front end portion of the tubing so that the cartridge is ready for use immediately upon insertion into a waste disposal device, or even the desirability of such a pre-formed closure. Rather, as clearly stated in Richards et al., a length of flexible tubing 2 (with unsealed and unclosed end portions) is placed inside a core 1 of a pack or cartridge which is placed on a flange 22 in the waste disposal device 21, and to begin using the cartridge, the top of the tubing 2 is pulled upwards and manually tied into a knot 24 (col. 3, lines 4-14). No other possibility for closing the end of the tubing other than manual tying of the tubing is suggested, nor are any disadvantages of such manual tying noted.

Richards et al. therefore does not provide any objective teaching to close the first end portion of the tubing by means other than manually tying it after the cartridge is present in the waste disposal device. Even more so, Richards et al. does not teach or disclose closing the first end portion by means of a closure provided during manufacture of the cartridge as now set forth in claims 1 and 22.

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Demming et al. describes a method for sealing a tubular packaging casing to form a series of sealed tubular packages. The casing 10 is sealed at one end with a closure clip 22 and its other end is placed around a filling tube 12 such that the casing 10 is around the filling tube 12. An amount of filling is pressed out of the opening of the filling tube 12 into the casing 10 and then the casing 10 is crimped and sealed. The tubing in Demming et al. is therefore not arranged in a cartridge but rather is arranged around and in front of a filling tube.

Although Demming et al. shows use of a closure clip to close an end of tubing, the absence of a cartridge for housing the tubing in Demming et al. precludes a finding of an objective teaching in Demming et al. to close of an end of tubing arranged in a cartridge using such a closure clip. The teaching of a closure clip in Demming et al. should be limited to only those situations where the tubing is passed around a filling tube and not for situations in which a filling tube is not used.

As to the absence of knowledge generally available to one of ordinary skill in the art which would lead an individual to combine the relevant teachings of the references, one skilled in the art of waste disposal devices would not have possessed the knowledge to pre-form a closure for the tubing of the Richards et al. cartridge. Indeed, there is no discussion in Richards et al. or the prior art of record of any disadvantage of manual tying of

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tubing in order to form the closure upon insertion of the cartridge into the waste disposal device, which would lead one skilled in the art to seek an alternative manner for closing the front end portion of the tubing.

Failing to recognize any disadvantage or drawback of the manually tying of the front end portion of tubing in a cartridge to begin its use in a waste disposal device, one skilled in the art would not have sought knowledge of alternative techniques to close the front end portion of the tubing. Thus, one skilled in the art would not have been in possession of knowledge which would have led them to combine the use of a closure clip, such as shown in Demming et al., with the cartridge of Richards et al. in order to arrive at the claimed embodiments of the invention.

In view of the arguments presented above, it is respectfully submitted that claims 1 and 22 patentably distinguish over Richards et al. in combination with Demming et al. under 35 U.S.C. §103.

Claims 2-8, 12, 13 and 20, which are either directly or indirectly dependent on claim 1, are patentable over Richards et al. in combination with Demming et al. in view of their dependence on claim 1 and because Richards et al. and Demming et al. do not disclose, teach or suggest all of the limitations recited in the dependent claims. For example, claims 9 and 21 include features similar to the weakened portion on the cover of

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the cartridge as set forth in claim 14. For the same reasons that claim 14 should be allowable over Richards et al. in combination with Demming et al. (discussed below), claims 9 and 21 and claims 10 and 11 which depend from claim 9, should also be allowable over Richards et al.

In view of the foregoing, applicant respectfully requests withdrawal of the rejection of claims 1-8, 12, 13, 20 and 22 under 35 U.S.C. §103(a) in view of Richards et al. in combination with Demming et al.

#### Claims 14-18

Independent claim 14 is amended to recite that the cover includes a substantially linear weakened portion formed thereon and which separates approximately equal parts of the cover such that a part of the cover on one side of the weakened portion is foldable about the weakened portion onto another part of the cover on an opposite side of the weakened portion. The weakened portion may be formed by score lines or a portion having a reduced thickness (see the specification at page 30, lines 22-27).

A cartridge including a linear weakened portion is not disclosed, taught or suggested by Richards et al. or Demming et al. Richards et al. includes a plastics ring 72 as its cover which does not include any such weakened structure which enables



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the cartridge to be folded after use. Demming et al. does not disclose any cartridge.

The Examiner therefore takes a position that "lines of weakness are being read as the seams in that cartridge", i.e., the Richards et al. cartridge (Office Action at page 4). It is respectfully submitted that whatever seams are found in the cartridge in Richards et al., the seams are not linear and do not separate cover into approximately equal parts.

In view of the fact that Richards et al. does not disclose a cover of a cartridge having a weakened portion as set forth in claim 14, it is respectfully submitted that claim 14, and claims 15-18 which depend directly or indirectly therefrom, should be allowable over Richards et al. in combination with Demming et al.

In view of the arguments presented above, it is respectfully submitted that claims 14-18 patentably distinguish over Richards et al. in combination with Demming et al. under 35 U.S.C. §103.

In view of the foregoing, applicant respectfully requests withdrawal of the rejection of claims 14-18 under 35 U.S.C. §103(a) in view of Richards et al. in combination with Demming et al.

#### Claim 19

Independent claim 19 recites a cartridge including a casing made of a plastic material and a cover made of cardboard. An

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advantage of making the cover of cardboard is that it is easier to provide weakened sections thereon and bend for the purpose of folding the cover about itself when the tubing is exhausted in order to close the rear end portion of the tubing.

The Examiner takes a position that the cartridge of Richards et al. can be defined as fibrous since by its nature and function it "must be tough enough to handle a large amount of use" (Office Action at page 4). (Although the Examiner's comment is directed to claims 12 and 19, only claim 12 recited that the cover was made of a fibrous material. Claim 12 has been amended to recite that the cover is made of cardboard.)

Richards et al. does not disclose a cover made of cardboard. Rather, the cartridge in Richards et al. is made entirely of plastic material, "the core 1 is a rigid plastics moulding with a flange 71" (col. 4, lines 32-33), "an angle-section plastics ring 72" (col. 4, line 37), " a flexible, transparent, plastics sleeve 73" (col. 4, line 40).

A cartridge in which the casing and cover are made of different materials, with the cover being made of cardboard, is not taught or suggested by Richards et al. Richards et al. does not provide any suggestion or motivation to make the ring 72 of a different material than the core 1, namely cardboard, to facilitate its bending, and indeed does not even contemplate bending of the cover after the tubing is exhausted.

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Demming et al. does not disclose any cartridge for tubing.

Since Richards et al. and Demming et al. do not disclose a cover for a cartridge made of cardboard, it is respectfully submitted that claim 19 patentably distinguishes over Richards et al. in combination with Demming et al. under 35 U.S.C. §103.

In view of the foregoing, applicant respectfully requests withdrawal of the rejection of claim 19 under 35 U.S.C. §103(a) in view of Richards et al. in combination with Demming et al.

#### Claim 23

Independent claim 23 recites a cartridge including a length of flexible tubing having a front end and a rear end and defining a continuous, elongate passage extending fully therebetween. The tubing includes lines of depressions situated between the front and rear ends and extending entirely across a circumference of the tubing to enable the tubing to be cleanly torn about each line while forming open ends of the tubing on both sides of the line (see Fig. 27).

The Examiner takes a position that the use of lines of separation to demarcate separation points for *rolls of plastic bags* is well-known in the art and that it would have been obvious to modify the bags of Richards et al. by forming lines of separation on them (emphasis added).

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The Examiner's position is respectfully traversed on the grounds that the claimed embodiment of the invention and Richards et al. do not include "rolls of plastic bags", for which the obviousness of including lines of separation or depressions to enable individual separation of the bags from the roll is asserted. Rather, Richards et al. and the embodiment of the invention set forth in claim 23 relate to a length of flexible tubing which defines a continuous passage between the front and rear ends. There are no heat-sealed circumferential lines between the front and rear ends of the tubing which will serve as the bottom of bags when the tubing is torn about lines of separation or depressions.

In view of the absence of heat-sealed circumferential lines which would enable the formation of a plurality of individual bags from the tubing of Richards et al., one skilled in the art would not be motivated to modify the tubing of Richards et al. to include lines of depressions. Indeed, the lines of depressions in prior art rolls of bags are formed solely for the purpose of enabling the formation of individual bags so that one skilled in the art would certainly not include such lines of depressions in the tubing of Richards et al. since the formation of such bags is not possible therein.

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Demming et al. does not disclose either lines of separation or depression or provide motivation to modify the tubing of Richards et al. to include the same.

In view of the arguments presented above, it is respectfully submitted that claim 23 patentably distinguishes over Richards et al. in combination with Demming et al. under 35 U.S.C. §103.

In view of the foregoing, applicant respectfully requests withdrawal of the rejection of claim 23 under 35 U.S.C. §103(a) in view of Richards et al. in combination with Demming et al.

Claims 24-26

Independent claim 24 is amended to recite that the casing includes a substantially cylindrical outer wall and a flange extending outward from an upper edge of the outer wall and that the cover is attached to the flange. Attachment of the cover 112 to the casing 110 using flange 120 is described in the specification at page 28, lines 24-27.

Richards et al. does not disclose a cartridge having a casing with an outer wall and a flange extending outward from the outer wall and which serves to enable attachment of a cover thereto.

Demming et al. does not disclose any cartridge for the tubing.

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Therefore, Richards et al. in combination with Demming et al. cannot render obvious the embodiment of the invention set forth in claim 24 or the embodiments set forth in claims 25 and 26 which depend from claim 24.

In view of the arguments presented above, it is respectfully submitted that claims 24-26 patentably distinguish over Richards et al. in combination with Demming et al. under 35 U.S.C. §103.

In view of the foregoing, applicant respectfully requests withdrawal of the rejection of claims 24-26 under 35 U.S.C. §103(a) in view of Richards et al. in combination with Demming et al.

#### New Claims

Claims 28 and 29 are presented.

Claim 28 depends from claim 24 and is directed to details of the manner in which the cover and casing are connected together.

Claim 29 is directed to a method for forming a ready-to-use cartridge for a waste disposal device. Claim 29 recites similar structural features as set forth in claim 1 and therefore should be considered together with claim 1 in this application.

#### AUTHORIZATION TO CHARGE FEE

As previously set forth, the application included 27 claims of which 7 were independent, and the appropriate claim fee was

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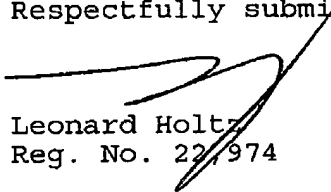
paid for such claims. The application now contains 28 claims, of which 7 are independent. Accordingly, a form 2038 is attached hereto to cover the extra claim fee in the amount of \$50.00, for the addition of 1 extra claim (the application no longer qualifying for small entity status). In addition, authorization is hereby given to charge any additional fees which may be determined to be required to Deposit Account No. 06-1378.

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In view of the foregoing, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,



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